

5,738, 935 to Turk et al. Reexamination and reconsideration of claim 1 and the claims which depend therefrom in view of the above amendments are requested.

Claim 1, as originally filed, is directed to a multi-component, longitudinally continuous extrusion, suitable for use in the fenestration, decking and remodeling industries. The invention, as originally claimed, comprised a first, hollow, high density composite member and a second, low density foamed member molecularly bonded to a sidewall of the first member. Those components of the first member are extruded from a primary extruder into an extrusion die, wherein the first member has inner and outer sidewalls, defining a high-density, thin wall extrusion, having at least one enclosed, hollow interior compartment. Claim 1, as currently amended, recites that the thermoplastic component and cellulosic fiber component of the first, high density composite member are all of a first pre-selected formulation. Claim 1, as originally submitted, recited that the multi-component extrusion also comprised a second, low density foamed member, consisting of a foamed thermoplastic polymer, coextruded with the first member in a molten state from a secondary extruder into the extrusion die so as to be laterally coextensive with and molecularly bonded to one of the side walls of the first member. Claim 1, as presently amended, now recites that the foamed thermoplastic polymer component of the second, low density foamed member has a second pre-selected formulation different from the first pre-selected formulation. New matter has not been added, and support for the above amendments can be found on page 14, lines 5 through page 15, line 27, where different formulations are shown by way of example for a PVC/wood flour composite (*e.g.*, the first, high density composite member) and the PVC foamed core (*e.g.*, the second, low density foamed member). The above amendments have been entered to further clarify the distinction between the invention recited in claim 1 (as amended) with the product disclosed in international published application WO 99/51425.

The product disclosed in the international application relied on by Examiner Vo under 35 U.S.C. § 102 is a composite extrusion manufactured from a single extruder in accordance with the well known Celuka process in which an extrudate having a single formulation is processed through a single extruder. However, under the Celuka process, the extrudate forms its own high density skin after foaming at the outer periphery thereof. Under the Celuka process, a foamed extrudate is formed in which the center of the final extrusion has

relatively large voids which uniformly decrease in size toward the periphery of the extrusion in a substantially uniform manner until a hard skin without voids is formed. Thus, the extrusion is substantially continuously variable from the center thereof to the outer periphery thereof, and it cannot be stated that the extrusion shown in WO 99/51425 has a "first, high density composite member...extruded from a primary extruder" and a "second, low density foamed member...coextruded with the first member in a molten state from a secondary extruder" as originally claimed. Furthermore, claim 1 as currently amended now more clearly recites that the formulation of the first and second members are different, whereas in the cited international published application, the formulation is uniform with respect to the extrusion and only the foaming process results in different mechanical characteristics at the interior and exterior thereof.

The distinction set forth in claim 1 as originally filed and as clarified by the above amendment results in superior characteristics for the claimed invention. Namely, the first, high density composite member, defining a high density thin wall extrusion having at least one enclosed, hollow interior compartment and the second, low density foamed member which is coextruded with the first member in a molten state from a secondary extruder in the same extrusion die so as to be laterally coextensive with one of the side walls of the first member allows the first and second members to be molecularly bonded to one another, yet have radically different mechanical characteristics. Thus, the claimed first, high density composite member can be extremely rigid and immune to bending moment, while the second, low density foamed member can have very high thermal insulation properties. This dual functionality cannot be achieved with the single formulation extrusion disclosed in the international published application. Thus, not only is the invention as recited in claim 1 as amended not shown in the international published application, the invention is neither taught nor suggested by the same. Therefore, the rejection of claim 1 as amended and claims 2 through 10 which depend therefrom must be rescinded.

Furthermore, the rejection of claims 7 and 8 as originally filed cannot be reasonably said to read on the extrusion disclosed in the international publication. Specifically, original claim 7 recites that the second member is laterally adjacent to and longitudinally coextensive with the outer side wall of the first, high density member. Claim 8 as originally filed recites that the second member is laterally adjacent to and longitudinally coextensive with

both the inner and outer side walls of the first, high density member. Considering that the first, high density composite thermoplastic/cellulosic fiber member is hollow, it is apparent that the product disclosed and method described in the international publication does not provide a foamed composite on the outside of a hollow, high density component. Thus, the rejection of claims 7 and 8 under 35 U.S.C. § 102 must be rescinded for this reason, in addition to the reasons set forth above with respect to claim 1 from which they depend.

Claims 9 and 10 have been rejected under 35 U.S.C. § 103(a) in view of the international published application in view of the Turk et al. reference. Turk et al. discloses a coextrusion process for forming a rigid PVC and wood layer 154 on one side of a solid PVC layer 152 (see Figure 10). However, Turk et al. fail to show, teach or suggest any means by which a closed surface, such as the first, high density composite member of amended claim 1, can either be filled or surrounded by a second, low density foamed member as recited in independent claim 1 as originally filed and as now amended. Specifically, the multi-component, longitudinally continuous extrusion of claim 1 is believed only achievable by the floating mandrel design best seen in Figures 4a, 4b and 4c of the instant application. Claim 1 positively recites that the first, high density composite member defines a high density, thin wall extrusion having at least one enclosed, hollow interior compartment. The claimed second, low density foamed member is laterally coextensive with the molecularly bonded to either the inner or outer side wall of the first, high density composite member, when fairly read in conjunction with the specification and drawings, and is seen to be a closed surface (*e.g.*, “enclosed, hollow interior compartment”). Thus, by necessity the second, low density foamed member also forms a closed surface, rather than merely a mathematically open-ended upper layer as shown in Figures 10 and 11 of the ‘935 Turk et al. patent. Thus, the Turk et al. reference fails to show the structure recited in independent claim 1, both as originally filed and as amended, and also fails to disclose any means for producing the extrusion recited in independent claim 1. Therefore, the rejections of claims 9 and 10, which depend from independent claim 1 as amended should be rescinded for these reasons, as well.

It should also now be apparent that the extrusion recited in amended claim 1 cannot be made by another materially different process. Thus, the restriction requirement should be rescinded.

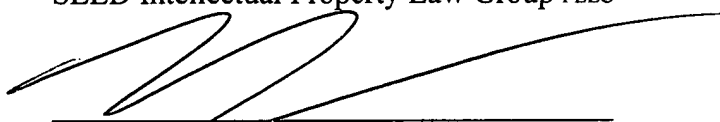
In view of the above, the application is believed to be in condition for allowance. The Applicant requests through the undersigned representative that submission of formal drawings be deferred until a Notice of Allowance is received. Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "**Version With Markings to Show Changes Made.**"

The Examiner is invited to contact the Applicant's representative at the undersigned's telephone number below to resolve any remaining issues.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims:

Claim 1 has been amended as follows:

1. (Amended) A multi-component, longitudinally continuous extrusion suitable for use in the fenestration, decking and remodeling industries, comprising:

a first, high density composite member consisting of a thermoplastic component and a cellulosic fiber component all of a first pre-selected formulation extruded from a primary extruder into an extrusion die, wherein the first member has inner and outer sidewalls defining a high density, thin wall extrusion having at least one enclosed, hollow interior compartment; and,

a second, low density foamed member consisting of a foamed thermoplastic polymer having a second pre-selected formulation different from the first pre-selected formulation, coextruded with the first member in a molten state from a secondary extruder into the extrusion die so as to be laterally coextensive with and molecularly bonded to one of the sidewalls of the first member.